

# PRODUCT INFORMATION



## L-Tyrosine (sodium salt hydrate)

Item No. 36333

**Formal Name:** L-tyrosine, sodium salt, dihydrate

**Synonyms:** L-4-Hydroxyphenylalanine,  
p-Hydroxyphenylalanine,  
(-)-Tyrosine, p-Tyrosine

**MF:**  $C_9H_{11}NO_3 \cdot XNa [2H_2O]$

**FW:** 181.2

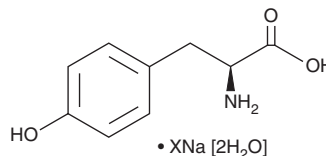
**Purity:**  $\geq 98\%$

**UV/Vis.:**  $\lambda_{max}$ : 227 nm

**Supplied as:** A solid

**Storage:**  $-20^{\circ}C$

**Stability:**  $\geq 4$  years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

L-Tyrosine (sodium salt hydrate) is supplied as a solid. Aqueous solutions of L-tyrosine (sodium salt hydrate) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of L-tyrosine (sodium salt hydrate) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

L-Tyrosine is a conditionally essential amino acid.<sup>1</sup> It is produced by hydroxylation of phenylalanine by phenylalanine hydroxylase but can also be obtained from dietary sources or degradation of endogenous proteins, resulting in L-tyrosine release.<sup>1,2</sup> L-Tyrosine is a precursor in the biosynthesis of catecholamine neurotransmitters, melanins, and thyroid hormones.<sup>3</sup> Plasma, skeletal muscle, and erythrocyte levels of L-tyrosine are decreased in patients with chronic kidney disease.<sup>1</sup>

### References

1. Kopple, J.D. Phenylalanine and tyrosine metabolism in chronic kidney failure. *J. Nutr.* **137**(6 Suppl 1), 1586S-1590S (2007).
2. Webster, D. and Wildgoose, J. Tyrosine supplementation for phenylketonuria. *Cochrane DB Syst. Rev.* **6**, CD001507 (2013).
3. Slominski, A. and Paus, R. Towards defining receptors for L-tyrosine and L-DOPA. *Mol. Cell Endocrinol.* **99**(2), C7-C11 (1994).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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